AMENDMENTS TO THE CLAIMS

The listing of claims replaces all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently Amended) A computer-implemented method, comprising:

accessing information about virtual memory page evictions for a computer, wherein the virtual memory page evictions correspond to virtual memory pages that are managed by an operating system of the computer;

accessing information about block evictions for an application on the computer, wherein the block evictions correspond to blocks of memory utilized by the application; and

determining a target size for a block cache for the application based at least upon the information about the virtual memory page evictions and the information about the block evictions

2.   (Original) The method of claim 1, further comprising, sizing the block cache in accordance with the target size.

3.   (Original) The method of claim 1, further comprising accessing information about virtual memory page reclamations for the computer, and determining the target size for the block cache based at least upon the virtual memory page reclamations.

4.   (Original) The method of claim 3, wherein said accessing information about virtual memory page reclamations comprises maintaining presence information regarding the presence of a block in a working set for the application.

5.   (Original) The method of claim 4, wherein the presence information is maintained for each block via a flag associated with the block.

6.   (Original) The method of claim 3, wherein said accessing information about virtual memory page reclamations comprises resetting a dirty flag for each virtual memory page underlying the block upon accessing or allocating the block.

7.   (Original) The method of claim 1, wherein determining a target size comprises calculating a change in target size per unit time.

8.   (Original) The method of claim 7, wherein the change in target size is calculated according to the following algorithm:

$$dCM/dt = AM/TM * dBE/dt - CM/TM * dPE/dt - dPR/dt$$

Where:

> CM comprises size of the memory of the block cache
>
> AM comprises available physical memory or available quota memory on the computer
>
> TM comprises total physical memory or total quota memory on the computer
>
> BE comprises Block Evictions
>
> PE comprises Virtual Memory Page Evictions
>
> PR comprises Virtual Memory Page Reclamations
>
> t comprises time.

9.   (Original) The method of claim 7, wherein the change in target size is added to the smallest of an actual size of the block cache and a previous target size to produce a new target size.

10.   (Original) The method of claim 9, wherein change from a previous target size to the new target size is maintained within a threshold.

11.   (Original) A computer-readable medium having computer-executable instructions for performing the method of claim 1.

Page 3 of 15

12.   (Currently Amended) A computer-implemented method, comprising:

accessing information about virtual memory page reclamations for a computer, wherein the virtual memory page evictions correspond to virtual memory pages that are managed by an operating system of the computer;

accessing information about block evictions for an application on the computer, wherein the block evictions correspond to blocks of memory utilized by the application; and

determining a target size for a block cache of the application based at least upon the information about the virtual memory page reclamations and the information about the block evictions.

13.   (Original) The method of claim 12, further comprising, sizing the block cache in accordance with the target size.

14.   (Original) The method of claim 12, wherein said accessing information about virtual memory page reclamations comprises maintaining presence information regarding the presence of a block in a working set for the application.

15.   (Original) The method of claim 14, wherein the presence information is maintained via a flag associated with each block.

16.   (Original) The method of claim 12, wherein said accessing information about virtual memory page reclamations comprises resetting a dirty flag for each virtual memory page underlying the block upon accessing or allocating the block.

17.   (Original) The method of claim 12, wherein determining a target size comprises calculating a change in target size per unit time.

18.   (Original) The method of claim 17, wherein the change in target size is calculated according to the following algorithm:

$$dCM/dt = AM/TM * dBE/dt - CM/TM * dPE/dt - dPR/dt$$

Where:

CM comprises size of the memory of the block cache

AM comprises available physical memory or available quota memory on the computer

TM comprises total physical memory or total quota memory on the computer

BE comprises Block Evictions

PE comprises Virtual Memory Page Evictions

PR comprises Virtual Memory Page Reclamations

t comprises time.

19.   (Original) The method of claim 17, wherein the change in target size is added to the smallest of an actual size of the block cache and a previous target size to produce a new target size.

20.   (Original) The method of claim 19, wherein change from a previous target size to the new target size is maintained within a threshold.

21.   (Original) A computer-readable medium having computer-executable instructions for performing the method recited in claim 12.

22.   (Currently Amended) A computer-implemented method, comprising:

accessing information about virtual memory page evictions on a computer;

accessing information about virtual memory page reclamations for the computer, wherein the virtual memory page reclamations and evictions correspond to virtual memory pages that are managed by an operating system of the computer;

accessing information about block evictions for an application on the computer, wherein the block evictions correspond to blocks of memory utilized by the application; and

determining a target size for a block cache of the application based at least upon the information about the virtual memory page reclamations, the information about the virtual memory page evictions, and the information about the block evictions by using the following algorithm:

dCM/dt = AM/TM * dBE/dt – CM/TM * dPE/dt – dPR/dt

Where:

CM comprises size of the memory of the block cache

AM comprises available physical memory the computer

TM comprises total physical memory the computer

BE comprises Block Evictions

PE comprises Virtual Memory Page Evictions

PR comprises Virtual Memory Page Reclamations

t comprises time.

23.   (Currently Amended) A computer-implemented method, comprising:

accessing information about virtual memory page evictions on a computer;

accessing information about virtual memory page reclamations for the computer, wherein the virtual memory page reclamations and evictions correspond to virtual memory pages that are managed by an operating system of the computer;

accessing information about block evictions for an application on the computer, wherein the block evictions correspond to blocks of memory utilized by the application; and

determining a target size for a block cache of the application based at least upon the information about the virtual memory page reclamations, the information about the virtual memory page evictions, and the information about the block evictions by using the following algorithm:

dCM/dt = AQ/TQ* dBE/dt - CM/TM* dPE/dt - dPR/dt

Where:

> CM comprises size of the memory of the block cache
>
> AQ comprises available quota memory on the computer
>
> TQ comprises total quota memory on the computer
>
> BE comprises Block Evictions
>
> PE comprises Virtual Memory Page Evictions
>
> PR comprises Virtual Memory Page Reclamations
>
> t comprises time.

Page 7 of 15

24.   (Currently Amended) A computer-readable medium having computer-executable instructions for performing a method, the method comprising:

accessing information about at least one of (1) virtual memory page reclamations and (2) virtual memory page evictions for a computer, wherein the virtual memory page evictions and reclamations correspond to virtual memory pages that are managed by an operating system of the computer;

accessing information about block evictions for an application on the computer, wherein the block evictions correspond to blocks of memory utilized by the application; and

determining a target size for a block cache of the application based at least upon (a) the information about the at least one of (1) the virtual memory page reclamations and (2) the virtual memory page evictions for the computer and (b) the information about the block evictions.

25.   (Original) The computer-readable medium of claim 24, wherein the method further comprises sizing the block cache in accordance with the target size.

26.   (Original) The computer-readable medium of claim 24, wherein said accessing information about virtual memory page reclamations comprises maintaining presence information regarding the presence of a block in a working set for the application.

27.   (Original) The computer-readable medium of claim 26, wherein the presence information is maintained for each block via a flag associated with the block.

28.   (Original) The computer-readable medium of claim 26, wherein said accessing information about virtual memory page reclamations comprises resetting a dirty flag for each virtual memory page underlying the block upon accessing or allocating the block.

29.   (Original) The computer-readable medium of claim 24, wherein said determining a target size for a block cache of the application comprises determining the target size based at least upon (a) information about the virtual memory page reclamations for the computer, (b) information about the virtual memory page evictions for the computer, and (c) the information about the block evictions.

30.   (Original) The computer-readable medium of claim 29, wherein determining a target size comprises calculating a change in target size per unit time.

31.   (Original) The computer-readable medium of claim 30, wherein the change in target size is calculated according to the following algorithm:

$$dCM/dt = AM/TM * dBE/dt - CM/TM * dPE/dt - dPR/dt$$

Where:

> CM comprises size of the memory of the block cache
>
> AM comprises available physical memory or total quota memory on the computer
>
> TM comprises total physical memory or total quota memory on the computer
>
> BE comprises Block Evictions
>
> PE comprises Virtual Memory Page Evictions
>
> PR comprises Virtual Memory Page Reclamations
>
> t comprises time.

32.   (Original) The computer-readable medium of claim 31, wherein the change in target size is added to the smallest of an actual size of the block cache and a previous target size to produce a new target size.

33.   (Original) The computer-readable medium of claim 31, wherein the change from a previous target size to the new target size is maintained within a threshold.

Page 9 of 15

34.   (Currently Amended) A computer system, comprising:

physical memory;

an application stored within the computer system; and a cache memory manager configures and adapted to:

access information about at least one of (1) virtual memory page reclamations and (2) virtual memory page evictions for the computer , wherein the virtual memory page evictions and reclamations correspond to virtual memory pages that are managed by an operating system of the computer;

access information block evictions for the application, wherein the block evictions correspond to blocks of memory utilized by the application; and

determining a target size for a block cache of the application based at least upon (a) the information about the at least one of (1) the virtual memory page reclamations and (2) the virtual memory page evictions for the computer and (b) the information about the block evictions.

35.   (Original) The computer system of claim 34, wherein said accessing information about virtual memory page reclamations comprises maintaining presence information regarding the presence of a block in a working set for the application.

36.   (Original) The computer system of claim 35, wherein the presence information is maintained for each block via a flag associated with the block.

37.   (Original) The computer system of claim 35, wherein said accessing information about virtual memory page reclamations comprises resetting a dirty flag for each virtual memory page underlying the block upon accessing or allocating the block.

38.   (Original) The computer system of claim 34, wherein said determining a target size for a block cache of the application comprises determining the target size based at least upon (a) information about the virtual memory page reclamations for the computer, (b) information about the virtual memory page evictions for the computer, and (c) the information about the block evictions.

39.   (Original) The computer system of claim 38, wherein determining a target size comprises calculating a change in target size per unit time.

40.   (Original) The computer system of claim 39, wherein the change in target size is calculated according to the following algorithm:

$$dCM/dt - AM/TM * dBE/dt - CM/TM * dPE/dt - dPR/dt$$

Where:

CM comprises size of the memory of the block cache

AM comprises available physical memory or total quota memory on the computer

TM comprises total physical memory or total quota memory on the computer

BE comprises Block Evictions

PE comprises Virtual Memory Page Evictions

PR comprises Virtual Memory Page Reclamations

t comprises time.

41.   (Original) The computer system of claim 40, wherein the change in target size is added to the smallest of an actual size of the block cache and a previous target size to produce a new target size.

42.   (Original) The computer system of claim 41, wherein the change from previous target size to the new target size is maintained within a threshold.

43.   (Currently Amended) A computer system, comprising:

physical memory;

an application stored within the computer system; and

means for accessing information about at least one of (1) virtual memory page reclamations and (2) virtual memory page evictions for the computer, wherein the virtual memory page evictions and reclamations correspond to virtual memory pages that are managed by an operating system of the computer;

means for accessing information about block evictions for the application, wherein the block evictions correspond to blocks of memory utilized by the application; and

means for determining a target size for a block cache of the application based at least upon (a) the information about the at least on of (1) the virtual memory page reclamations and (2) the virtual memory page evictions for the computer and (b) the information about the block evictions.

44.   (Original) The computer system of claim 43, wherein said accessing information about virtual memory page reclamations comprises maintaining presence information regarding the presence of a block in a working set for the application.

45.   (Original) The computer system of claim 44, wherein the presence information is maintained for each block via a flag associated with the block.

46.   (Original) The computer system of claim 44, wherein said accessing information about virtual memory page reclamations comprises resetting a dirty flag for each virtual memory page underlying the block upon accessing or allocating the block.

47.   (Original) The computer system of claim 43, wherein said determining a target size for a block cache of the application comprises determining the target size based at least upon (a) information about virtual memory page reclamations for the computer, (b) information about the virtual memory page evictions for the computer, and (c) the information about the block evictions.

48.   (Original) The computer system of claim 47, wherein determining a target size comprises calculating a change in target size per unit time.

49.   (Original) The computer system of claim 48, wherein the change in target size is calculated according to the following algorithm:

$$dCM/dt = AM/TM * dBE/dt - CM/TM * dPE/dt - dPR/dt$$

Where:

CM comprises size of the memory of the block cache

AM comprises available physical memory or total quota memory on the computer

TM comprises total physical memory or total quota memory on the computer

BE comprises Block Evictions

PE comprises Virtual Memory Page Evictions

PR comprises Virtual Memory Page Reclamations

t comprises time.

50.   (Original) The computer system of claim 49, wherein the change in target size is added to the smallest of an actual size of the block cache and a previous target size to produce a new target size.

51.   (Original) The computer system of claim 50, wherein the change from a previous target size to the new target size is maintained within a threshold.

Page 13 of 15